

#5 - Rev. 1



SATURN V PROGRAM DIRECTIVE

SATURN V PROGRAM DIRECTIVE NUMBER: 5 ORIGINAL ISSUE DATE: December 23, 1964
REVISION NUMBER: 1 DATE OF REVISION: August 12, 1965
SUBJECT: Saturn V Program QUARTERLY PROJECT REVIEWS

I. PURPOSE

This Program Directive establishes Saturn V Program

QUARTERLY PROJECT REVIEWS

sets forth policy, assigns basic responsibility and summarizes procedures governing the conduct thereof. Compliance is required by all MSFC elements engaged in the management or support of the Saturn V Program.

II. SCOPE

The Quarterly Project Review will be action centered and encompass two separate aspects of the Project being reviewed:

A. Technical Review

The technical review is held primarily to identify, discuss, and resolve/assign resolution of problem areas in the technical development of the project and to review technical status. Subjects will include but not be limited to:

1. Weight
2. Quality assurance, quality control and reliability
3. Configuration Control
4. System change actions
5. Status of documentation (specifications, drawings, etc.)
6. Software
7. Working group reports
8. Other technical items as deemed appropriate

B. Management Review

The management review is held primarily to identify, discuss and resolve/assign resolution of problem areas in the management oriented areas listed below:

1. Schedules
2. Resources

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II.B.2. (Continued)

- a. Manpower
- b. Funds
- c. Cost
3. Facilities and Equipment
4. Contracts
5. Logistics
6. Configuration Management
7. Selected management topics as appropriate

III. REFERENCE

IO Management Instruction I-1-4 dtd May 12, 1965, Subject: IO Quarterly Review Meetings

IV. DEFINITIONS

For the purpose of this Program Directive the following definitions apply:

A. Program:

All separately identified Saturn V Program elements which collectively comprise the Saturn V Program and which are under the cognizance and direction of one PROGRAM MANAGER.

B. Project:

Each of the specific Saturn V Program elements under the cognizance and direction of a single manager. The following are Saturn V Program PROJECTS:

1. S-IC Stage Project
2. S-II Stage Project
3. S-IVB Stage Project
4. Instrument Unit (IU) Project
5. Vehicle Ground Support Equipment (Vehicle GSE) Project

V. RELATIONSHIP OF QUARTERLY PROJECT REVIEWS WITH PROGRAM MANAGEMENT TOOLS

A. The Quarterly Project Review meeting is a management tool of the:

1. Respective Project Manager
2. Saturn V Program Manager
3. Higher echelons of management at MSFC

B. The purpose of a Quarterly Project Review is to:

1. Assess the cause and correction of problems.
2. Evaluate the effectiveness and efficiency of management
3. Determine reasons for outstanding success or for performance below that required.

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V.. (Continued)

- C. A Quarterly Project Review is ACTION/PROBLEM CENTERED; it is not conducted exclusively to review program history or to agree, as a committee, that action is required: Problems are identified, defined, and corrective measures instigated under the aegis of the cognizant Saturn V Program Project Manager. Participants in a quarterly review of a Saturn V Program Project will be considered as a working group authorized and directed to conduct searching analyses of project progress, to identify problems, institute corrective actions and conduct follow-up to assure implementation of directions. In order to optimize direction and realize maximum benefit from Quarterly Project Reviews, it is considered desirable to standardize routine aspects of the review insofar as practicable. Procedures and actions prescribed herein are designed to provide standardization of Quarterly Project Reviews, while, at the same time, allowing the manager sufficient latitude to make adjustments as changing requirements dictate.

VI. APPLICABILITY:

- A. Quarterly Project Reviews are applicable to all Saturn V Projects as defined in Paragraph III.B., above, and through direction supplied by the Project Managers, to the respective contractors.
- B. Research and Development Operations (R&DO):
1. Technical Review:
Appropriate R&DO Offices and/or Laboratories will be active participants in the Technical Review portion of Quarterly Project Reviews. The Project Manager conducting the review will coordinate the Technical Review agenda with the affected R&DO activities.
 2. Management Review:
Appropriate R&DO Offices and/or Laboratories may be requested to attend the Management Review by the Project Manager to assist in coordinating managerial aspects of technical problems. Request to R&DO for assistance in the managerial review will clearly define the subject or item upon which assistance is required.

VII. RESPONSIBILITY AND AUTHORITY:

- A. The Project Manager shall schedule, prepare for, coordinate and follow-up on his Quarterly Project Review. Actions required are:

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VII.A. (Continued)

1. Schedule of Quarterly Project Reviews:

Quarterly Project Reviews will be scheduled one calendar year in advance by the cognizant Project Manager. The location of these Quarterly Project Reviews should be alternated between the contractor's plant and MSFC where practical.

2. Conduct of Quarterly Project Reviews - General:

The Quarterly Project Review meeting is oriented as a report that is action/problem centered, from and by the appropriate contractor of the particular Saturn V Program Project. Reviews will be conducted in two sequential parts:

- a. Part one - Technical Review
- b. Part two - Management Review

3. Pre-Review Actions:

- a. Preparation of agenda: (See Enclosure 1 for standardized review agenda format and speaker identification sheet)

The cognizant Project Manager will have a tentative agenda prepared twenty work days prior to the scheduled date of the Quarterly Project Review. The tentative agenda will be coordinated with appropriate contractor, Saturn V, R&DO and other MSFC activities:

- b. Finalization and Publication of Agenda:

The tentative agenda will be finalized, published and agencies/individuals charged with responding thereto notified ten work days prior to the Quarterly Project Review.

- c. Notification of Quarterly Project Review:

Formal notification of the Quarterly Project Review shall be made not later than ten work days prior to the meeting date. Notification will be in the form of an invitation to attend, except, that in instances where action is required or expected, the action addressee will be requested to attend. A copy of the review agenda (Paragraph 3.b., above) will be enclosed with the notification specified hereby.

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VII.A.3. (Continued)

d. Preparation of Hand Out Material:

Copies of presentations by both the contractor and NASA personnel will be prepared prior to the Quarterly Project Review and a copy given to each person attending immediately after the meeting has been called to order. Distribution of hand out material prior to the meeting may be made at the discretion of the Project Manager.

4. Technical Review:

The technical review will be conducted as the first order of business in the Quarterly Project Review. One work day may be allocated, if required, for the technical review.

a. Chairman:

The technical review will be chaired by the cognizant Project Manager.

b. Participants:

- (1) Contractor
- (2) Project Personnel
- (3) Research and Development (R&D) Personnel
- (4) Invited Participants and/or Guests

c. Recorder:

Chief, Project Control Branch, of the cognizant Project Office.

d. Agenda (Order of Business):

- (1) Approval of technical review minutes of the previous Quarterly Project Review.
- (2) Presentation and approval of the technical review agenda.
- (3) Report by chairman on action items from the previous technical review.
- (4) The technical review will vary in content and emphasis as program technical status changes but will continue to be action/problem centered. Certain items should be presented at each Quarterly Project

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VII.A.4.d.(4) (Continued).

Review to lend continuity. Repetitive items should include but not be limited to:

- (a) Weight.
 - (b) Manufacturing Problems if applicable.
 - (c) Quality Assurance and Quality Control
 - (d) Reliability.
 - (e) Configuration control and configuration management.
 - (f) Proposed changes to include cost, effectivity, schedule impact, interface impact, alternatives and actions recommended.
 - (g) Documentation (specifications, drawings, etc.)
 - (h) Software.
 - (i) Working group reports.
 - (j) Other technical matters as deemed appropriate.
- (5) Review by chairman, definition and assignment of action items (See Enclosure 2 for format) to responsible action agency with suspense date for completion.
- (6) Announcement of Technical Direction (T.D.) Meetings required to initiate work on action items.

5. Management Review:

The management review will be conducted after the technical review. One work day will be allocated, if required, to the management review.

a. Chairman:

The management review will be chaired by the cognizant Project Manager. The NASA resident manager will not act as chairman.

b. Participants:

- (1) Contractor
- (2) Project Personnel
- (3) Invited Participants and/or Guests

c. Recorder:

Chief, Project Control Branch of the cognizant Project Office.

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VII.A.5. (Continued)

d. Agenda (Order of Business):

- (1) Approval of management review minutes of previous Quarterly Project Review.
- (2) Presentation and approval of agenda for management review.
- (3) Report by chairman on action items from the previous management review.
- (4) Synopsis by chairman of pertinent discussions and action items from the technical review of preceding day.
- (5) Schedule status to include contract schedule, PERT status, PERT trend and contractor schedule assessment.
- (6) Resources to include:
 - (a) Funds, cost and unfilled orders by month for current year against negotiated contract; authorized contract changes and projected overrun or underrun. Similar information is required by year through program conclusion.
 - (b) Identification of direct and indirect manpower will be provided for engineering, manufacturing and test by location for current year, by month, and succeeding years, by year, through program conclusion.
- (7) Facilities to include schedule requirements and status of construction.
- (8) Equipment status to include manufacturing tooling and machinery and peculiar GSE.

NOTE: Vehicle GSE will be treated from an overall standpoint by the Vehicle GSE Project Manager in his Quarterly Project Review.
- (9) Contract to include basic contract, changes submitted, approved, disapproved and pending with projected value and schedule effect, and CPIF conversion schedule.

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VII.A.5.d. (Continued)

- (10) Logistics to include logistics management, maintenance engineering, spares, technical support data, training, transportation, propellants and pressurant management and field service support.
- (11) Configuration management to include identification changes, number submitted, approved, disapproved, pending and projected.
- (12) Other selected management topics as appropriate.
- (13) Review and assignment of action items (See Enclosure 2 for format) to responsible action agency with suspense date for completion.

6. Distribution of Minutes:

Minutes of the Quarterly Project Review will be prepared by the recorder and distributed to all attendees and personnel assigned action items. Distribution of minutes will be accomplished not later than ten days after the conclusion of the review.

7. Response to Action Items:

Action items assigned during, or as the result of Quarterly Project Reviews, will carry a suspense date for completion. Action individuals will advise the cognizant Project Manager when action items are completed. In the event a previously imposed suspense date cannot be met, notification thereof with reasons why and expected completion date will be provided to the Project Manager.

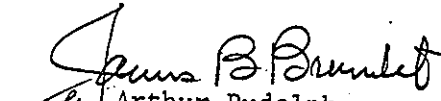
8. Control of Attendance:

It is essential that the Quarterly Project Reviews be maintained and operated as a dynamic action centered management tool; therefore, discretion will be exercised by the responsible Project Manager to limit attendance to those individuals who have valid requirements to attend the Quarterly Project Review. The Quarterly Review will not be open to those persons

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VII.A.8. (Continued)

merely seeking an orientation on Project activities. An approved attendance list will be prepared and used for controlled access to the reviews.


for Arthur Rudolph
Manager, Saturn V Program

2 Enc:
a/s

S-IC PROJECT
QUARTERLY REVIEW

AGENDA

TITLE: S-IC/Boeing Project Quarterly Review

DATE: 27 July 1965 (Tuesday)

TIME: 9:00 - 4:30

LOCATION: MSFC, Building 4200, Room P114, Huntsville, Alabama

CHAIRMAN: Mr. Matthew Urlaub, Manager, S-IC Project

PARTICIPANTS: MSFC, The Boeing Company

TECHNICAL REVIEW

<u>TIME</u>	<u>SUBJECT</u>	<u>SPEAKER</u>
9:00 - 9:15	Introduction	MSFC (Mr. Urlaub)
9:15		Boeing (Mr. Nelson)

S-IC PROJECT
QUARTERLY REVIEW

AGENDA

TITLE: S-IC/Boeing Project Quarterly Review

DATE: 28 July 1965 (Wednesday)

TIME: 9:00 - 4:30

LOCATION: Michoud Assembly Facility, New Orleans, Louisiana

CHAIRMAN: Mr. Matthew Urlaub, Manager, S-IC Project

PARTICIPANTS: MSFC, The Boeing Company

MANAGEMENT REVIEW

<u>TIME</u>	<u>SUBJECT</u>	<u>SPEAKER</u>
9:00 - 9:15	Introduction	MSFC (Mr. Urlaub) Boeing (Mr. Nelson)

S-IC PROJECT
QUARTERLY REVIEW

SPEAKER IDENTIFICATION

TECHNICAL REVIEW

<u>ORGANIZATION</u>	<u>NAME</u>	<u>TITLE</u>	<u>CODE</u>
MSFC	Mr. Matthew Urlaub	Manager, S-IC Project Office	I-V-SIC
	Mr. Wm. Hallisey	Chief, S-IC Project Control Office	I-V-SIC-P
	-		
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BOEING	Mr. Richard Nelson	Manager, Launch Systems Branch	

MANAGEMENT REVIEW

NUMBER 1	S-IC PROJECT QUARTERLY REVIEW ACTION ITEM	STATUS AS OF 25 Oct 65
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TITLE: Implementation of MA-2 Schedule

DATE ASSIGNED	POINTS OF COMMITMENT			SUSPENSE DATE
	ORG	ACTION ASSIGNEES	LEAD	
10th Quarterly Review	MSFC	Mr. M. Urlaub, Manager S-IC Project	X	14 Aug 65
27 Jul 65 (Technical Rev.)	BOEING	Mr. R. Nelson, Manager Launch Systems Branch		

DISPOSITION: Send answer to Dr. A. Rudolph, Manager, Saturn V Program

DESCRIPTION: Determine when The Boeing Company can realign their effort to support the MA-2 Schedule.

STATUS: Completed. Dr. A. Rudolph informed by letter on 14 Aug 65 that The Boeing Company can support the MA-2 Schedule effective 1 Sept 66.